ICDF Landfill Final Cover Hydrologic Model

Discussion Topics

1. Review 30% Hydrologic Cover Study
2. Review 60% Hydrologic Cover Study
3. IDEQ Comments
4. Path Forward

60% Hydrologic Study Review

- ***Include Surface Water Run-Off***
- ***Defect Analysis***
- ***Determine Percolation Through Compacted Clay Liner and Lateral Drainage***
- ***Sensitivity Analysis***

Overall Approach: ***Continue to use existing 1-D model from 30% and evaluate other components analytically***

60% Hydrologic Study Review

Surface Water Run-Off

Method:

① Calculate daily run-off using SCS curve number method

② Subtract daily run-off from precipitation amount

③ Re-run Cover Soil with adjusted precipitation amount

60% Hydrologic Study Review

Surface Water Run-Off

	Base Case	Extreme Case
Average Annual Run-Off	1 mm	3 mm
Percent of Precipitation	0.6%	1%
Average Annual Breakthrough With Run-Off	0.41 mm	0.46 mm
Average Annual Breakthrough Without Run-Off	0.38 mm	0.48 mm

Conclusion: No change in breakthrough, so surface run-off has an insignificant effect of water flow through cover

60% Hydrologic Study Review

Surface Water Run-Off